

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1-52. (Canceled)

53. (New) A method for inserting an implant into tissue, the method comprising the steps of:
providing an implant, the implant comprising:

a port structure comprising an outer wall having a substantially uniform outer circumference interrupted by a plurality of regions having areas of a smaller outer circumference, wherein a first region of the plurality of regions comprises one or more discrete tactile surface structures, and a second region of the plurality of regions comprises a plurality of discrete tactile surface structures, wherein each of said discrete tactile surface structures encircles the port structure and are arranged along a length of the port body that comprises at least a portion of an implant area;

a holding structure coupled to a first end of the port structure, the holding structure comprising an encircling ring protruding from the first end of the port structure, the encircling ring comprising a plurality of openings spaced around said encircling ring; and

a connecting structure coupled to a second end of the port structure and configured for conditional attachment to a connecting element; and

inserting the implant into the tissue such that at least a portion of each of said discrete tactile surface structures is beneath an outer surface of the tissue and improves ingrowth characteristics associated with the implant by promoting growth of cellular tissue in at least one direction relative to the surface of the implant, and at least a portion of the connecting structure is provided above the outer surface of the tissue.

54. (New) The method as set forth in claim 53, wherein the implant comprises a non-biosorbable material.

55. (New) The method as set forth in claim 54, wherein one of the plurality of regions of tactile surface structure is provided in a region of the implant, wherein, after the implant has been implanted in a body, the surface structure is generally adjacent to the skin.

56. (New) The method as set forth in claim 53, wherein the each of the tactile surface structures exhibits a width of approximately 1 to 10 mm.

57. (New) The method as set forth in claim 53, wherein each of the tactile surface structures exhibits a width of approximately 4 to 5 mm.

58. (New) The method as set forth in claim 53, wherein one or more of the tactile surface structures comprises a groove.

59. (New) The method as set forth in claim 58, wherein the depth of said at least one or more grooves is approximately 0.1 to 10 times the average width of a type of cell adjacent to the groove after the implant is implanted.

60. (New) The method as set forth in claim 58, wherein the depth of said at least one or more grooves is approximately 0.3 to 5 times the average width of a type of cell adjacent to the groove after the implant is implanted.

61. (New) The method as set forth in claim 58, wherein the depth of the at least one groove is approximately 1 to 10 μm .

62. (New) The method as set forth in claim 58, wherein the depth of the at least one groove is approximately 3 to 4 μm .

63. (New) The method as set forth in claim 58, wherein the width of the at least one groove is in the range of approximately 1 to 10 μm .

64. (New) The method as set forth in claim 58, wherein the width of the at least one groove is in the range of approximately 4 to 5 μm .

65. (New) The method as set forth claim 58, wherein, if more than one groove is provided, the distance of the grooves from each other is approximately 2 to 20 μm .

66. (New) The method as set forth claim 58, wherein, if more than one groove is provided, the distance of the grooves from each other is approximately 10 μm .

67. (New) The method as set forth in 58, wherein the ratio of the width of the groove to the depth of the groove is approximately 0.5 to 2.

68. (New) The method as set forth in claim 53, wherein the plurality of tactile surface structures promote growth of cellular tissue in a direction parallel to a skin surface into which the implant is inserted.

69. (New) The method as set forth in claim 53, wherein the plurality of tactile surface structures promote growth of cellular tissue by orienting cell growth in a uniform direction relative to the surface structure of the implant.

70. (New) A method for inserting an implant into tissue, the method comprising the steps of:
providing an implant, the implant comprising:

a port structure comprising an outer wall having a substantially uniform outer circumference having regions of interruptions, the regions comprising areas of a smaller outer circumference, wherein a first region interrupting the substantially uniform outer circumference comprises one or more discrete tactile surface structures, and wherein a second region interrupting the substantially uniform outer circumference comprises a plurality of discrete tactile surface structures, wherein the first and second region are separated by a portion of the outer wall having the substantially uniform outer circumference, and wherein each of said discrete tactile surface structures encircles the port structure and are arranged along a length of the port body that comprises at least a portion of the implant area;

a holding structure coupled to a first end of the port structure, the holding structure comprising an encircling ring protruding from the first end of the port structure, the encircling ring comprising a plurality of openings spaced around said encircling ring; and

a connecting structure coupled to a second end of the port structure and configured for conditional attachment to a connecting element; and

inserting the implant into the tissue such that at least a portion of each of said discrete tactile surface structures is beneath an outer surface of the tissue and improves ingrowth characteristics associated with the implant by promoting growth of cellular tissue in at least one direction relative to the surface of the implant.

71. (New) A method for inserting an implant into tissue, the method comprising the steps of:
providing an implant, the implant comprising:

a port structure comprising an outer wall having a first region and a second region, each of the first and second regions having a substantially smooth surface, and a surface structure region disposed between the first and second regions, wherein the surface structure region comprises a plurality of discrete surface structures encircling the port structure;

a holding structure coupled to a first end of the port structure, the holding structure comprising an encircling ring protruding from the first end of the port structure, the encircling ring comprising a plurality of openings spaced around said encircling ring; and

a connecting structure coupled to a second end of the port structure and configured for conditional attachment to a connecting element; and

inserting the implant into the tissue such that at least a portion of each of said first, second, and surface structure regions is beneath an outer surface of the tissue, and at least a portion of the connecting structure is provided above the outer surface of the tissue.

72. (New) The method as set forth in claim 71, wherein the holding structure further comprises an attachment region configured for coupling the holding structure to the first end of the port structure, and wherein the attachment region includes a circumferential recess in an outer surface thereof.